YEW TREE AND GARDENS

Client: Mr & Mrs Whitwell – Lime Tree Farm, Whalley Road, Clitheroe, Lancs.

ARBORICULTURAL IMPACT ASSESSMENT FOR PROPOSED AGRICULTURAL BUILDING

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ARBORICULTURAL IMPACT ASSESSMENT

1. SITE

A. SITE DESCRIPTION

- 1. The proposed development site is comprised of an area of agricultural grazing land with permanent grass cover at Lime House Farm, Whalley Road, Clitheroe, Lancashire.
- 2. The development area is as indicated in Appendix 2: Tree Constraints Plan and tree stock is as detailed within Appendix 1: Tree Schedule, Appendix 2: Tree Constraints Plan
- 3. The survey area consists of the section of land between the existing farm buildings and the small block of farm woodland copse to the east.
- 4. Tree stock in the survey site is comprised of the continuous woodland block which forms the eastern boundary of the site and a single mature Oak in the northeast corner of the survey site. No other tree stock is located within the vicinity of the proposed development site.
- 5. The survey area is bounded by the tree stock to the east, the existing farm buildings to the west and agricultural grazing land to the north and south.

B. SURVEY DETAILS

- 1. The site was surveyed on 09/01/2023, tree heights were estimated via use of a clinometer (Suunto PM-5), measurements of DBH taken at 1.5m height and crown spread was taken by ground measurements. The position of selected tree references within the site were estimated via laser measure from physical reference points which had been provided by the marking out of the proposed building footprint. Note: We are not land surveyors and as such tree locations are estimated to the limits of measurements and site reference points. Tree locations were added from the supplied site plan. Sun positions were estimated on site via Sun Surveyor software. Weather conditions were overcast with light winds. Images were recorded at survey date on a Samsung A32.
- 2. All surveying of tree stock on the site was carried out visually from the ground only. Where ivy cover was encountered on trees then only limited visual checking of structure and potential defects was possible.
- 3. At the time of surveying all trees were recorded on standard tree record sheets, see Appendix 1: Tree Schedule. Trees were surveyed throughout the entire site, detailed individual details were recorded for all significant trees within the existing site. Where larger numbers of smaller trees were encountered in the survey area these are included as a Group record which includes the approximate height range and maximum Diameter at Breast Height (DBH) of trees within the group, these groups are referred to by group i.e. Group 2 (G2).
- 4. The surveyed trees are categorized by the standard retention categories as defined in BS5837:2012. Such retention categories seek to inform the design process of trees which may be worthy of consideration for inclusion within the proposed development. All work recommendations relate to trees within the context of the current site layout and usage.
- 5. Note: the report and schedule recommendations form components of a development survey and are not intended to be used as a specific tree hazard assessment.
- 6. Trees requiring removal to facilitate the proposed development, or which are unsuitable for retention are annotated in red on the Tree Constraints Plan and may be further identified in the work recommendation section of the Tree Schedule.

2. PROPOSED DEVELOPMENT

- A. PROPOSED DEVELOPMENT
- 1. The proposed development layout is for the construction of an agricultural building in the section of land to the east of the existing farm buildings. The layout proposals form the basis of Appendix 2: Tree Constraints Plan.

3. TREE PRESERVATION ORDERS AND CONSERVATION AREAS

A. SITE DESCRIPTION

- 1. The site is not located within a Conservation Area.
- 2. We have conducted an online check of the Ribble Valley Borough Council TPO (Tree Preservation Order) list, this does not show a TPO with the name 'Lime House Farm'. Reference: https://www.ribblevalley.gov.uk/downloads/download/263/list-of-tree-preservation-orders-tpo.
- 3. The status of all trees within and adjacent to the site boundaries should be verified to the undertaking of tree works or removals.
- 4. It should be noted that trees located outside of maintained grounds and not covered by an active TPO or conservation area are subject to the standard Felling License constraints imposed by the Forestry Commission. These regulations restrict the volume of timber which may be removed in a calendar quarter without a felling licence to 5 cubic metres.
- 5. Hedgerow regulations cover the protection of certain established field boundary hedges.

4. IMPACT OF DEVELOPMENT ON TREE STOCK

- A. CURRENT TREE STOCK
- 1. The current tree stock within the survey boundaries as defined by those trees within 20 metres of the proposed site boundary is detailed in Appendix 1: Tree Schedule and outlined as follows.
- 2. Tree reference T1 is located at the southern edge of the woodland W1. It sits at the edge of the group and owing to its location, its crown development is biased towards the south. Whilst the crown form of the tree is significantly unbalanced it is not currently compromising the stability of the tree. T1 has normal vigour with no significant volumes of aerial deadwood.
- 3. W1 is a small block of woodland, the species composition is indicates that it has been planted as landscape feature rather than for timber production, shelter etc. The largest trees within it are mature Common Limes to a stem diameter (DBH) of 610mm. Additional tree stock along the western edge (site side) of the woodland is provided by Ash and Sycamore, these are most likely to have colonised the woodland in addition to the original planting. The woodland is fenced to the west east and north but is open to the field to the south. All trees are set back from the western edge fencing with the Limes being 1.5 to 2m back from the fence.
- 4. The overall condition of W1 is good with the Limes having the usual volumes of epicormic growth and limited aerial deadwood. The closure of smaller (450mm DBH) Sycamores are in poor condition with the two trees closest to the fence having open decay columns at the base of their stems. The lower stem is a hollow column in the closest tree to the fence.
- 5. The two Ash trees in the northern section of the woodland edge have Ash Dieback Disease. The infection is in the advanced latter stages with extensive dieback and deadwood throughout their crowns.
- 6. Tree reference T2 is a mature Sessile Oak with some veteran features, previous significant failures mean that it is effectively a standing stem with little remaining live canopy.
- 7. No other significant trees are located within the sphere of the development. The woodland W1 extends to the east but tree within it are subsidiary to the outer edge (surveyed) in relation to the development area.

4. IMPACT OF DEVELOPMENT ON TREE STOCK (CONT.)

- B. PROPOSED DEVELOPMENT
- 1. Trees which are within the zone of potential impacts from the proposed development are detailed as follows.
- 2. The proposed development would not require the removal of any of the surveyed trees.
- 3. The proposed development layout is located outside of the RPA (Root Protection Area of the surveyed trees.
- 4. The proposed building footprint as marked out on site is 8.5m from the fence which forms the boundary of W1. This places it outside of the RPA of all surveyed tree stock with a separation of 2.5m to the RPA of the Limes in W1 and 1.5m from the RPA of T1. This tree is located at 12.6m from the proposed building location.
- 5. The retained trees can be protected during the construction phase by the provision of protective fencing. Given the limited separation to the plotted RPA of T1, we recommend that the fencing be set within the outer edge and temporary ground protection used to facilitate construction access. A methodology for this is contained in section 5D of this document.
- 6. As noted in section 4B and Appendix 1, the Sycamore with a hollow stem requires removal and the two Ash with Ash Dieback require either removal or reduction to safe heigh standing stems. These are pre-existing requirement and are not created or exacerbated by the proposed building.
- 7. No other trees are directly or indirectly affected by the proposed development.

5. SUGGESTED MITIGATION MEASURES

A. GUIDELINES

- 1. Outline guidance for the protection and retention of trees within and adjacent to the site.
- 2. Erection of protective fencing as indicated in Appendix 2: Tree Constraints Plan. Temporary ground protection for the root zone of T1.
- 3. No material storage should take place in protected areas.
- 4. No mixing of cement-based or other building materials should take place within the root protection area, no storage of fuels should take place within this area.
- 5. The tree protection must remain in place until work is completed and there is no risk to the RPAs
- 6. Once construction has been completed and the landscaping phase is complete the protective fencing may be removed.

B. PROTECTIVE FENCING

- Once erected all protective fencing will be regarded as sacrosanct and will remain in place until the completion of the construction phase. It shall not be removed, relocated, or breached at any time without consultation with the project arboriculturalist.
- 2. Protective fencing will be constructed of robust barriers fit for the purpose of excluding construction traffic form root protection areas.
- 3. Signs will be affixed to every third panel stating, 'Tree Protection Area Keep Out'. See Appendix 6 for example of signage.
- 4. All fencing will be securely affixed to avoid movement of fencing during the construction phase.
- 5. For the sections marked in solid purple on Appendix 2 fences will be constructed of site fencing of 'Heras' type with additional bracing as shown in Appendix 5.
- 6. Indicative positions for protective fencing are shown in purple on Appendix 2: Tree Constraints Plan.

5. SUGGESTED MITIGATION MEASURES (CONTINUED)

- C. GENERAL PRINCIPLES TO AVOID DAMAGE TO TREES.
 - 1. Protective fencing installed to prevent mechanical damage to trees adjacent to the development.
 - 2. An indicative list of recommended practices during construction phase is listed below:
 - 3. Once installed tree protection must remain in place and be observed at all times.
 - 4. No fires within 10m of the crown of any retained trees.
 - 5. Soil levels in rooting areas to be retained with minimal level changes, no greater increases than 300mm from existing levels.
 - 6. No cement mixing/washout to take place within 15m of any retained trees.
 - 7. No chemicals, bitumen etc. to be stored within 10m of any retained trees.
 - 8. Any spillage of fuel, chemicals or contaminated water occurring within 2m of the root protection areas to be reported to project supervisor.
 - 9. No additional underground services have been indicated to us at this time but they may be safely routed to avoid rooting zones, if additional services require routing through the root zones of trees for retention then appropriate sub surface or hand trenching methods should be used and guidance sought prior to any works being undertaken. See BS3857:2012.

D. TEMPORARY GROUND PROTECTION AND SURFACES (CYAN SHADING): ON APPENDIX 2

- 1. Temporary ground protection during construction works in the areas around the proposed dwellings should be in place prior to any construction activity. It may be formed as per no dig access detailed below (6.). An alternative method is outlined here.
- Before the construction process starts, all areas of the RPA that may be affected by access will be covered with temporary ground protection as set out in BS. 5837:2012, we recommend a geotextile membrane overlaid by a minimum 100 mm depth of compressible material (woodchip or similar) topped with timber boards. An alternative method such as temporary plastic track mats may also be used.
- 3. The ground protection must remain in place until the construction is completed.
- 4. No cement mixing or wash out should take place within this area of the site.
- 5. The ground protection must remain in place until work is complete and there is no risk to the RPA.
- 6. Remove any significant surface vegetation and any existing shrub cover using appropriate handheld tools or herbicide*. Remove any surface rocks, debris and organic material. Create a level surface by filling any hollows with clean angular stone or sharp sand. Do not level off high spots or compact the soil through rolling.
- Edging is not required for temporary ground protection usage of geocell / cellweb; a surface mounted cellular containment system e.g. Geosynthetic Cellweb TRP 200 or equivalent product must be installed. This containment system must be installed to the relevant manufacturer guidelines. See Appendix 10.
- 8. In all instances the installation of the cellular containment system base must be completed prior to any access into the RPA of retained trees. Installation of the ground protection should take place from the main hard surface area outwards with no incursion into the fenced areas.
- 9. Tree protection fencing must be maintained in position through all aspects of the construction phase.

*Note: Extract from BS5837:2012 "The use of herbicides in the vicinity of existing trees should be appropriate for the type of vegetation to be killed, and all instructions, warnings and other relevant information from the manufacturers should be strictly observed and followed. Care should be taken to avoid any damaging effects upon existing plants and trees to be retained, species to be introduced, and existing sensitive habitats, particularly those associated with aquatic or drainage features."

6. CONCLUSION

- 1. The proposed development layout will not require the removal of any individual trees or groups of trees.
- 2. All tree references are located outside of the development boundaries.
- 3. The proposed building footprint is located outside the RPA (Root Protection Areas) and crowns which extend into the site.
- 4. Protection for the surveyed trees can be provided by standard protective fencing.
- 5. A section of ground protection will be required in order to allow adequate room for construction access.
- 6. Three trees within W1 are I poor condition and require either removal or reduction to a safe height irrespective of the proposed development.
- 7. No other significant trees than those surveyed are located within the proximity of the development area.
- 8. The nature of the proposed development combined with the size and location of the retained trees will not create any above ground conflicts regards to light reduction or overshadowing.

7. RECOMMENDATIONS

It is recommended that

1. The design and layout of any proposed development reflects the guidance contained within this report both for the management of trees for retention and the protection of same during the proposed development phase and that due consideration is given to the position of any development in relation to retained trees and the removal of trees which are unsuitable for long term retention from the site prior to any development.

Туре	Name	Age	DBH	Height 1st	BI	N E		S	W	Cond	Life Exp	Comments	Recommendations / development	RPR m	RPA m ²	Category
													Retain in development, protect via			
												Tree located at SW corner of W1. Unbalanced crow	fencing and section of ground			
T1	Quercus robur (Common Oak)	М	960	22	3	5	12	12	6	Fair	40+	form due to influence of surrounding trees	protection	11.5	416.98	A2
W1	Acer pseudoplatanus (Sycamore),Fraxinus excelsior (Ash),Tilia X europaea (Common Lime)	M	610	20	4	5	5	5	5	Mix	40+	Small farm woodland 'copse'. Dominant species is Lime which are also the largest individual trees. Ash component in poor condition with mid to latter stag Ash Dieback Disease infection, they will require management irrespective of development. Sycamores are smaller with suppressed 'drawn up' forms. 1 x tree requires removal due to open decay cavity and hollowing of lower stem.	Retain in development, protect via fencing. Sycamore with cavity requires removal to prevent failure of stem, 2 x Ash with advanced dibeack require either felling or reducing to standing conservation stems	7.32	168.36	A2
Т2	Quercus robur (Common Oak)	M	760	12	3	3.5	3.5	3.5	3.5	Poor	10+	Remnants of mature tree, tree has suffered significant failure resulting in loss of main stem and crown, remnant stem with limited crown on E side of tree. Habitat value from remnant stems	Retain in development, protect via fencing.	9.12	261.33	B2

Surveyor: A. Wood

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Table 1Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where a	ppropriate)		Identification on plan							
Trees unsuitable for retention	(see Note)										
Category U Those in such a condition that they cannot realistically	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)										
be retained as living trees in	• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline										
the context of the current land use for longer than	 Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality 										
10 years	NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7 .										
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation								
Trees to be considered for ret	ention										
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2							
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2							
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2							

evv Tree





13-AE () 13-82 () 13-62 () 13-02 ()	Lime House Farm Date of Survey:
Root Protection Area (radius)	09/01/2023 Surveyor:
RPA Category B	A. Wood Date File Created:
RPA Category C Category U tree unsuitable for retention	01/02/2023 1:250
Restricted Root Potection Area (polygon)	Yew Tree & Garden
	Yew Tree House Hale Milnthorpe
Surveyed Canopy Extents	Cumbria LA7 7BJ 015395 63527 07813897631
	info@yewtreegardens.co.uk www.yewtreegardens.co.uk
	Note: RPA only indicated for significant
Tree Protection Fence	trees. Small garden trees and juvenile specimens may not be indicated Retention Categories: As defined in BS5837: 2012
Ground Protection / Specific Working Methods	RFA: Plotted from individual RPA sheets. Where restricted rooting conditions are present RPA is also plotted as an area polygon





APPENDIX 4

Selected Reference List

The Body Language of Trees by Claus Mattheck & Helge Breloer (1994) London:HMSO. Diagnosis of ill-health in trees by R.G. Strouts and T.G. Winter. (2000) London:HMSO Principles of Tree Hazard Assessment and Management by David Lonsdale.(1999) HMSO BS5837:2012 British Standards Institute BS3998:2010 British Standards Institute Trees Their Use, Management, Cultivation and Biology Robert Watson 2006 Tree roots in the built environment (Research for Amenity Trees) (2013) Arboricultural Association Law of Trees, Forests and Hedges by Dr. Charles Mynors (Author) Sweet & Maxwell; 2nd Revised edition (14 Dec. 2011) Assessment of Tree Forks, Assessment of Junctions For Risk Management by Dr. Duncan Slater : Arboricultural Association (Nov 2016)

Collins Tree Guide by Owen Johnson (2006): Harper Collins, London

Tree protective fencing



Tree protective fencing

BRITISH STANDARD

BS 5837:2012



